



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

RB877528-4-7
Job Sheet 170019



Part No: RB877528-4-7

Job Qty: 1 ea

Part Name: 6 Tooth Cutter



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 1/8/18

Job Tracking No:

Due Date: 1/10/18

Created By: Marie Lajeunesse

Type: Stock

Description:

Ship Via: Dev 3 DP 18-2-14

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	4 Ea		12/11/17	0.00	0.00	Start Up Machining-1		<u>SL 18-1-10</u>
110	CNC Lathe	4 pcs		12/11/17	6.00	0.00	MORI SL-154		<u>SL</u>
120	QC	4 pcs		12/11/17	0.00	0.00	QC2 Machining-4		<u>SL</u>
130	QC	4 pcs		12/11/17	0.00	0.00	QC8 Machining-4		<u>SL 18-01-11</u>
140	QC	4 pcs		12/11/17	0.00	0.00	QC5		<u>38</u>
150	Outsource	4 pcs		12/26/17			MEI001-VC	10	<u>SL 18-02-13</u>
155	Outsource	4 pcs		1/10/18	<u>16</u>		AFF001-VC	10	<u>SL 18-02-13</u>
160	Packaging	4 pcs		1/10/18	0.00	0.00	Packaging2		<u>DAS</u>
170	QC	4 pcs		1/10/18	0.00	0.00	QC5		<u>38</u>
180	Packaging	4 pcs		1/10/18	0.00	0.00	Packaging3-1		<u>DAS</u>
190	QC21-SA	4 Ea		1/10/18	0.00	0.00	QC21		<u>21</u>

Part Op 110 - 1-Machine as per DWG. FB610 FOLIO REV: AR DWG REV: 3 2-Deburrr *****LEAVE
Descriptions: O.D. 0.010" TO 0.015" OVER SIZED GRIND AFTER HEAT TREAT, AS PER DWG. NOTE 1 SHEET 5**** 003
150 - P/O to Metcor :P/O 038843 Heat treat to RC 50-60, Bead blast after heat treat, part made from drill rod O1
Certificate of Conformity required ship directly to KG grinding 16
155 - 1--Issue P/O to KG Grinding; P/O 038843 2-Grind as per DWG. 3- Certificate of Conformity is required
038849

FEB 14 2018
JAN 23 2018

Job Allocations

Operation	Component Part	Required	Inventory	Allocated	Std Qty
90-Start up Operation	MT-O1-R0.750	0	5	0	0

SOB 133

.4

Part Specifications

Specifications could not be found.

DART
AEROSPACE
S031025

Dart Aerospace Ltd.

1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA

TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com



6 Tooth Cutter

PART NO: RB877528-4-7

Revision:

Operation:

Change No:

Start up Operation

Mfg Date: 01/10/18

Job No: 170019

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

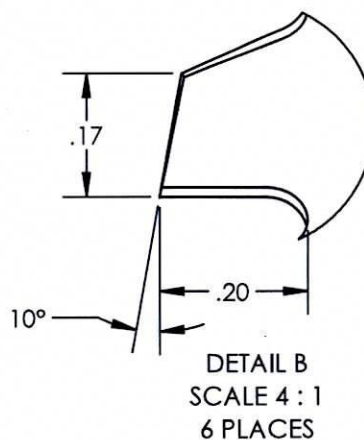
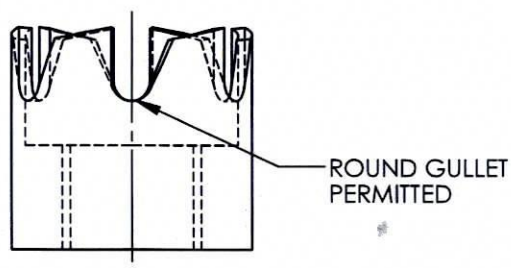
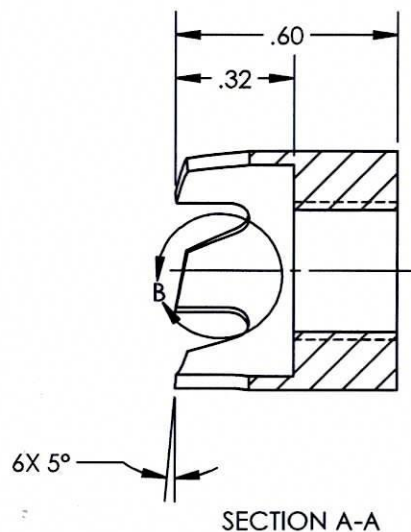
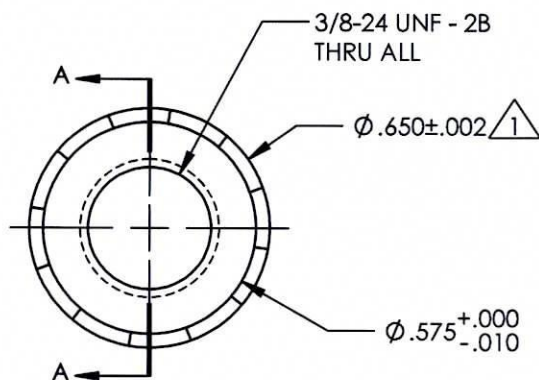
QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : ☐					

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1		-7 RADIAL ANGLE INCREASED FROM 2° TO 5° TO IMPROVE OPERATION.	2/19/2004	-	-
2		CH'D NOTE TURN TO FROM .660 P/N -7 PER GABRIEL. CH'D REVISIONS TO NUMERICAL, CH'D TITLEBLOCK & REVISION BLOCK, MADE SECTION VIEW A-A P/N -6, LABELED SECTIONS B-B P/N -17, & SECTION C-C P/N -21.	7/27/2009	RJC	-



(-7)
6 TOOTH CUTTER

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 170019 MJS
18-01-08

NOTE:

- 1 LEAVE OD .010 TO .015 OVER SIZED.
GRIND AFTER HEAT TREAT.

DART AEROSPACE	
TITLE DAMPER BEARING TOOL KIT	
DWG NO. RB877528-4-7	REV 3
MAT'L 0-1	DRAWN BY: PERRITT
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
.XXX ± .005	FRACTIONS ± 1/8
.XX ± .01	ANGLES ± .5°
.X ± .1	
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	
2. DIMENSIONAL LIMITS APPLY AFTER PLATING	
SCALE 2:1	DATE 6/28/2000
SHEET 5 OF 9	

METCOR INC.

560 BOUL. ARTHUR-SAUVÉ
ST-EUSTACHE, QC J7R 5A8
Tel: 450-473-1884 / Fax: 450-491-5498

Reçu de livraison

Delivery Receipt

BON DE TRAVAIL Order	EXPÉDITEUR Shipper ID	BON D'EXPÉDITION Shipper
324793	1	125407

EXPÉDITION COMPLÈTE / Shipped Complete

CLIENT /Customer 215

DART AEROSPACE
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
Ph: 613-632-5200
Fax: 613-632-1053



LIVRÉ À /Shipped To

KG GRINDING
11455 PHILLIPPE PANNETON AVE.
MONTREAL, QC H1E4M1
Ph: 613-632-5200
Fax: 613-632-1053

COMMANDE DU CLIENT Customer PO	BON DE LIVRAISON DU CLIENT Customer Shipper No.	TYPE DE MATÉRIEL Material Type	DATE DE LA COMMANDE Order Date	TRANSPORTEUR Carrier
38843		O1	1/23/2018	fed

QUANTITÉ Quantity	No. PIÈCE / Part No.	NOM DE LA PIÈCE / Part Name	DESCRIPTION DE LA PIÈCE Part Description	POIDS Weight
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5 RB877528-4-7
(5) RB877528-4-7 JOB. 170019

1 SAC DE PAPIER

C218/02/113

TYPE DE CONTENEUR Container Type	# DE CONTENEURS # Of Containers	COMMENTAIRES CONTENEUR Container Comments
SAC DE PAPIER	1	

certificat

EMPAQUETAGE Packing	
------------------------	--

QUANTITÉ EXPÉDIÉE / Quantity Shipped : 5

POIDS EXPÉDIÉ / Weight Shipped : 1,00

QUANTITÉ RESTANTE / Quantity Remaining : 0

POIDS RESTANT / Weight Remaining : 0,00

certificat

QUANTITÉ EXPÉDIÉE /Quantity Shipped: 5

POIDS EXPÉDIÉ / Weight Shipped : 1,00

Signature:

Date:

EXPÉDIÉ LE / Shipped On : 02/01/2018



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER **PO038843**

Supplier: MEI001-VC
Metcor Inc.
560 Boul. Arthur Sauve
Saint-Eustache
QC
J7R 5A8 Canada
Phone: 450 473 1884
Fax: 450 491 5498

PO No: PO038843
PO Date: 1/23/18
Due Date: 1/30/18
Purchase Order
Revision:
Revision Date:
Ship-To Contact: Phone:

E-MAILED
JAN 26 2018

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground
Pymt Terms: Net 30
Freight Terms:
Special Comments:

REVISED \$

Items

Line Item	Job	Part	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	170134	RBA9937-5	Tail Rotor Nut Wrench "C" Model (Rb Design) HEAT TREATING 1--Issue P/O to Metcor ; P/O _____ RC 45-47 2-Bead blast 3- Certificate of Conformity is required ***NOTE*** DROP SHIP TO FINISHER Metcore to ship directly to Groupe Altech	Firmed	1/30/18	2 pcs	0 pcs	2 pcs	\$75.00/pcs	\$150.00
Line Item Note Parts made from 4130N Sheet .188 Ship Directly to Groupe Altech										
2	170135	RBA9937-5	Tail Rotor Nut Wrench "C" Model (Rb Design) HEAT TREATING 1--Issue P/O to Metcor ; P/O _____ RC 45-47 2-Bead blast 3- Certificate of Conformity is required ***NOTE*** DROP SHIP TO FINISHER Metcore to ship directly to Groupe Altech	Firmed	1/30/18	2 pcs	0 pcs	2 pcs	\$75.00/pcs	\$150.00

Line Item Note Parts made from 4130N Sheet .188
Ship Directly to Group Altech

PURCHASE ORDER

Items										
Line Item	Job	Part	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
3	169324	RBD29823-5A	Tail Rotor Nut Wrench "D" Model (New Design) HEAT TREATING 1--Issue P/O to Metcor ; P/O _____ RC 44-47 2-Bead blast 3- Certificate of Conformity is required ***NOTE*** DROP SHIP TO FINISHER Metcore to ship directly to Groupe Altech	Firmed	1/30/18	4 pcs	0 pcs	4 pcs	\$75.00/pcs	\$300.00
Line Item Note Parts made from 4130N sheet .188 Ship directly to Group Altech										
4	170019	RB877528-4-7	6 Tooth Cutter P/O to Metcor P/O _____ Heat treat to RC 50-60. Bead blast after heat treat, part made from drill rod O1 Certificate of Conformity required ship directly to KG grinding	Firmed	1/30/18	5 pcs	0 pcs	5 pcs	\$60.00/pcs	\$300.00
Line Item Note Parts made from T-01 Round 0.750 ship directly to KG Grinding										
5	168220	646.3013	Blade HEAT TREAT AS PER DWG, SEE NOTE #3 ISSUE P/O: FINISH: HEAT TREAT TO 58-62 RC ROCKWELL HARDNESS PART ARE MADE FROM AISI A2 TOOL STEEL	Firmed	1/30/18	12 pcs	0 pcs	12 pcs	\$3.324468/pcs	\$39.89
6	168222	646.3015	Blade FINISH: HEAT TREAT TO 58-62 RC ROCKWELL HARDNESS As per dwg 646.3000 PART ARE MADE FROM AISI A2 TOOL STEEL DETAIL OF C OF C REQUIRED	Firmed	1/30/18	12 pcs	0 pcs	12 pcs	\$3.324468/pcs	\$39.89
7	168230	646.3314	Blade HEAT TREAT AS PER DWG 646.3300 FINISH: HEAT TREAT TO 58-62 RC ROCKWELL HARDNESS PART ARE MADE FROM AISI A2 TOOL STEEL	Firmed	1/30/18	10 pcs	0 pcs	10 pcs	\$3.324468/pcs	\$33.24

PURCHASE ORDER

Items										
Line Item	Job	Part	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
8	168231	646.3315	Blade HEAT TREAT AS PER DWG 646.3300 FINISH: HEAT TREAT TO 58-62 RC ROCKWELL HARDNESS PART ARE MADE FROM AISI A2 TOOL STEEL PLEASE NOTE: DETAIL C OF C REQUIRED	Firmed	1/30/18	10 pcs	0 pcs	10 pcs	\$3.324468/pcs	\$33.24
						✓ 10x		AT 18/02/05		
9	168232	646.3316	Blade HEAT TREAT AS PER DWG 646.3300 FINISH: HEAT TREAT TO 58-62 RC ROCKWELL HARDNESS PART ARE MADE FROM AISI A2 TOOL STEEL PLEASE NOTE: DETAIL C OF C REQUIRED	Firmed	1/30/18	10 pcs	0 pcs	10 pcs	\$3.324468/pcs	\$33.24
						✓ 10x		AT 18/02/05		
10	168266	646.9711	Blade PO to Metcor: FINISH: HEAT TREAT TO 58-62 RC ROCKWELL HARDNESS PART ARE MADE FROM AISI A2 TOOL STEEL PLEASE NOTE: DETAIL C OF C REQUIRED	Firmed	1/30/18	40 pcs	0 pcs	40 pcs	\$3.32447/pcs	\$132.98
						✓ 40x		AT 18/02/04		
Grand Total:										\$1,212.50

Order Notes

Procurement Quality Clauses
 A005 right of entry
 A012 chemical and physical test report
 A016 personnel qualification
 A017 raw material identification (as applicable)

A022 Apical Processing
 A024 process certifications
 A026 certification of material conformance

A041 quality management system
 A042 dart notification by supplier
 A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit
www.dartaerospace.com for further explanation.

Plex 1/26/18 8:31 AM dart.lavoie.chantal

CL



AFRUTAGE K.G. INC.
K.G. GRINDING INC.

Distributeur d'outils de coupe & Affûtage sur mesure
Distributor of cutting tools & Custom tooling

BON DE LIVRAISON
DELIVERY SLIP

DAIRY AREA

72782

P.O. # 038849

DATE: FEB-7-2018

[illegible]

RECÚ EN BONNE CONDITION / RECEIVED IN GOOD ORDER
www.kggrinding.com • sales@kggrinding.com



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

PO038849

Supplier: AFF001-VC
Affutage K.G. Inc.
11455 Philippe Panneton Ave.
Montreal
QC
H1E 4M1 Canada
Phone: 514 323 0192 514 323 6631
Fax: 514 323 6631

PO No: PO038849
PO Date: 1/24/18
Due Date: 2/12/18
Purchase Order Revision:
Revision Date:
Ship-To Contact: Baker, Diane
Phone: dbaker@dartaero.com

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground
Pymt Terms: Net 30
Freight Terms:
Special Comments:

Items										
Line Item	Job	Part	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	170019	RB877528-4-7	6 Tooth Cutter 1--Issue P/O to KG Grinding; P/O 2-Grind as per DWG. RB877528-4-7 Rev. 3	Firmed	2/12/18	5 pcs	0 pcs 45	5 pcs 02/13/18	\$45.00/pcs	\$225.00
Grand Total:										\$225.00

Order Notes

Procurement Quality Clauses
A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)

A022 Apical Processing
A024 process certifications
A026 certification of material conformance

A041 quality management system
A042 dart notification by supplier
A043 retension of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

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Plex 2/13/18 8:46 AM dart.baker.diane